

6B10

Twin Diode—Medium-Mu-Twin Triode

DUODECAR TYPE

With Heater Having Controlled Warm-Up Time

GENERAL DATA

Electrical:

Heater Characteristics and Ratings (*Design-Maximum Values*):

Voltage (AC or DC)	6.3 ^a	6.3 ± 0.6	volts
Current	0.600 ± 0.040	0.600 ^b	amp
Warm-up time (Average)	11	—	sec

Peak heater-cathode

voltage (Each unit):

Heater negative with

respect to cathode. 200 max. volts

Heater positive with

respect to cathode. 200^c max. volts

Direct Interelectrode

Capacitances (Approx.):^d

Diode Units:

Plate of unit No.1 to cathode,
internal shield, and heater .

1.9 pf

Plate of unit No.2 to cathode,
internal shield, and heater .

1.8 pf

Triode Units:

	Unit No.1	Unit No.2	
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Grid to plate	1.5	1.5	pf
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Grid to cathode,

internal shield,

and heater.

1.7 1.8 pf

Plate to cathode,

internal shield,

and heater.

1.6 0.6 pf

Plate of diode unit No.1

to plate of diode

unit No.2

0.7 pf

Triode grid to plate of

diode unit No.1

0.015 0.005 pf

Triode grid to plate of

diode unit No.2

0.02 0.005 pf

Plate of triode unit No.1

to plate of triode

unit No.2

0.9 pf

Characteristics, Class A₁ Amplifier (Each Triode Unit):

Plate Voltage 250 volts

Grid Voltage. -8 volts

Amplification Factor. 18

Plate Resistance (Approx.). 7200 ohms

Transconductance. 2500 μ mhos

Plate Current 10 ma

Grid Voltage (Approx.) for plate μ a = 50. -20 volts



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Electron Tube Division
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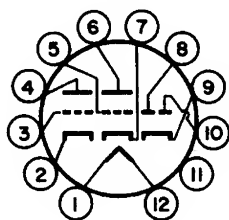
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Mechanical:

Operating Position. Any
 Types of Cathodes Coated Unipotential
 Maximum Overall Length. 1.875"
 Seated Length 1.250" to 1.500"
 Diameter. 1.062" to 1.188"
 Bulb. T9
 Base. Small-Button Duodecar 12-Pin (JEDEC No.E12-70)
 Basing Designation for BOTTOM VIEW. 12BF

Pin 1-Heater	Pin 7-Cathode of Triode Unit No.1
Pin 2-Cathode of Triode Unit No.2	Pin 8-Plate of Diode Unit No.2
Pin 3-Grid of Triode Unit No.2	Pin 9-Cathode of Diode Units No.1 & No.2
Pin 4-Plate of Triode Unit No.2	Pin 10-Plate of Diode Unit No.1
Pin 5-Grid of Triode Unit No.1	Pin 11-Internal Shield
Pin 6-Plate of Triode Unit No.1	Pin 12-Heater



TRIODE UNITS — AMPLIFIER — Class A₁

Values are for Each Unit

Maximum Ratings, Design-Maximum Values:

PLATE VOLTAGE	330 max.	volts
DC CATHODE CURRENT.	20 max.	ma
PLATE DISSIPATION	3 max.	watts

Maximum Circuit Values:

Grid-No.1-Circuit Resistance:		
For fixed-bias operation.	0.25 max.	megohm
For cathode-bias operation.	1 max.	megohm

DIODE UNITS — Two

Values are for Each Unit

Maximum Ratings, Design-Maximum Values:

PLATE CURRENT	5 max.	ma
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Characteristics, Instantaneous Value:

Plate Current for plate volts = 5 . . .	20	ma
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^a At heater amperes = 0.600.

^b At heater volts = 6.3.

^c The dc component must not exceed 100 volts.

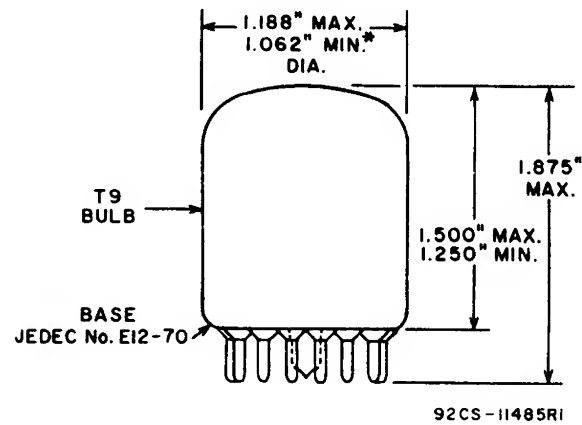
^d Without external shield.

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* APPLIES TO MINIMUM DIAMETER EXCEPT IN AREA OF SEAL.



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